III. IN THE CLAIMS

Please cancel claims 97 & 106, and add new claims 128 & 129. Also, please amend claims 83, 87, 90-92 & 96, 100, 102-103, 109-111, 114, 116, 126 & 127 as follows:

83. (Currently amended) An electronic game device comprising
a housing,
a playfield that includes a plurality of playing positions, wherein each playing position includes an indicator that provides a plurality of visual indications, and a keypad switch to activate the playing position,
a microprocessor to control the operation of the device, and
a control [logic] program executed on the [processor] microprocessor that assigns a first set of binary numbers to playing positions on the playfield; routes binary numbers respective to [an activated playing position] the playing position activated by the player to each other; generates a second set of binary numbers from said first set of binary numbers using a Boolean function, or a lookup table; assigns said second set of binary numbers to indicators on the playfield to provide visual indications; and determines when [the] a predefined objective of the game is met.

84. (Original) An electronic game device as recited in claim 83 wherein said keypad switch and indicator at each playing position are provided by an illuminated keypad switch.

85. (Original) An electronic game device as recited in claim 84 wherein the keypad switch is illuminated using light emitting means.

86. (Original) An electronic game device as recited in claim 85 wherein said light-emitting means is provided using multi-colored light emitting diodes.

87. (Currently amended) An electronic game device as recited in claim 83 wherein said indicator is provided by at [lease] least one of a Liquid Crystal Display (LCD) screen, a Cathode Ray Tube (CRT) screen, a digital light processor (DLP) screen, and a plasma screen.

4

88.   (Original) An electronic game device as recited in claim 84, wherein said plurality of visual indications includes at least one illuminated color, and a color reflected from the surface of the indicator when the keypad switch is dark.

89.   (Original) An electronic game device as recited in claim 87, wherein said plurality of visual indications includes at least one image, and a visual indication resulting from the absence of an image at a playing position.

90.   (Currently amended) An electronic game device as recited in claim 83, further comprising means [to generate] for generating visual and audible effects during game play, and at the conclusion of a game.

91.   (Currently amended) An electronic game device as recited in claim 83, further comprising a segment of the control [logic] program executed on the [processor] microprocessor that provides a plurality of games by varying the assignment of the first set of binary numbers to playing positions.

92.   (Currently amended) An electronic game device as recited in claim 83, further comprising means [to vary] for varying the difficulty level of play.

93.   (Original) An electronic game device as recited in claim 83, further comprising a plurality of games stored in a data section of the control program, wherein each game is defined by a different assignment of predefined binary numbers to playing positions.

94.   (Original) An electronic game device as recited in claim 93, wherein said plurality of games is in various levels of difficulty.

95.   (Original) An electronic game device as recited in claim 83, wherein the shape of said housing is in the form of a three-dimensional configuration, and wherein said plurality of playing positions are mapped on the surface of the three-dimensional configuration.

96.   (Currently amended) An electronic game device as recited in claim 83, wherein said control program includes a plurality of segments, and wherein the segment of control [logic] program that routes binary numbers to each other includes an algorithm that routes binary numbers assigned to the playing positions at the top, bottom, left, and right of the activated keypad switch, to each other.

97.   (Cancelled) An electronic game device as recited in claim 96, wherein said algorithm simulates the operation of a logical element, which is depicted as a geometric square that has two states, and further comprises eight (8) ports (four input ports and four output ports) located at the four (4) edges of the square such that one input port and one output port are located at each edge of said square to provide eight (8) possible internal routes within the square. Four of these internal routes are used to route binary numbers to each other. The remaining four internal routes could be used to provide a dynamic assignment of the second set of binary numbers to the indicators. The eight routes are described as follows:

    a. if the state of the square is set to "1", then:

        (i) the input port at the bottom edge of the square connects to the output port at the top edge of the square,

        (ii) the input port at the left edge of the square connects to the output port at the right edge of the square,

        (iii) the input port at the right edge of the square connects to the output port at the bottom edge of the square,

(iv) the input port at the top edge of the square connects to the output port at the left edge of the square, or

b. if the state of the square is set to "0", then:

(i) the input port at the bottom edge of the square connects to the output port at the right edge of the square,

(ii) the input port at the left edge of the square connects to the output port at the top edge of the square,

(iii) the input port at the right edge of the square connects to the output port at the left edge of the square,

(iv) the input port at the top edge of the square connects to the output port at the bottom edge of the square.]

98. (Original) An electronic game device as recited in claim 83, wherein said first set of binary numbers is generated randomly.

99. (Original) An electronic game device as recited in claim 83, wherein said first set of binary numbers is predefined, and is stored as program data in a data section of the control program.

100.   (Currently amended) An electronic game device comprising:

a playfield that includes a plurality of playing positions, wherein each playing position includes an indicator that provides a plurality of visual indications,

control means [to activate] for activating any playing position,

a microprocessor to control the operation of the device,

means [to assign] for assigning a first set of binary numbers to playing positions on the playfield,

means [to route] for routing binary numbers respective to [an activated playing position] the playing position activated by the player to each other,

7

means [to generate] for generating a second set of binary numbers from said first set of binary numbers,

means [to assign] for assigning said second set of binary numbers to indicators on the playfield to provide visual indications, and

means [to determine] for determining if [the] a predetermined objective of the game is met.

101. (Original) An electronic game device as recited in claim 100 further comprising a housing.

102. (Currently amended) An electronic game device as recited in claim 100, further comprising means [to generate] for generating a plurality of games.

103. (Currently amended) An electronic game device as recited in claim 100, wherein said means [to generate] for generating a second set of binary numbers employs a Boolean function, or a lookup table.

104. (Original) An electronic game device as recited in claim 101, wherein said control mechanism that activates any playing position includes keypad switches.

105. (Original) An electronic game device as recited in claim 101, wherein said control mechanism that activates any playing position includes a cursor control switch mechanism.

106. (Cancelled) An electronic game device as recited in claim 100, wherein said means to route binary numbers to each other includes an algorithm, which simulates the operation of a logical element, which is depicted as a geometric square that has two states, and further comprises eight (8) ports (four input ports and four output ports) located at the four (4) edges of the square such that one input port and one output port are located at each edge of said square to provide eight (8) possible internal routes within the square. Four of these internal routes are used to route binary numbers to each other. The remaining four internal routes could be used to provide a

dynamic assignment of the second set of binary numbers to the indicators. The eight routes are described as follows:

    a. if the state of the square is set to "1", then:

        (i) the input port at the bottom edge of the square connects to the output port at the top edge of the square,

        (ii) the input port at the left edge of the square connects to the output port at the right edge of the square,

        (iii) the input port at the right edge of the square connects to the output port at the bottom edge of the square,

        (iv) the input port at the top edge of the square connects to the output port at the left edge of the square, or

    b. if the state of the square is set to "0", then:

        (i) the input port at the bottom edge of the square connects to the output port at the right edge of the square,

        (ii) the input port at the left edge of the square connects to the output port at the top edge of the square,

        (iii) the input port at the right edge of the square connects to the output port at the left edge of the square,

        (iv) the input port at the top edge of the square connects to the output port at the bottom edge of the square.

    107.   (Original) An electronic game device as recited in claim 100, wherein said first set of binary numbers is generated randomly.

    108.   (Original) An electronic game device as recited in claim 100, wherein said first set of binary numbers is predefined, and is stored in a data section of the control program.

109. (Currently amended) An electronic game device as recited in claim 100, wherein said means [to assign] for assigning said second set of binary numbers to indicators includes an algorithm that employs the dynamic routes of the routing squares on the playfield.

110. (Currently amended) An electronic game device as recited in claim 100, wherein said predetermined objective of the game is to reach a state during which all the indicators produce the same visual indication, and wherein said means [to assign] for assigning said second set of binary numbers to indicators is based on [a fixed assignment, wherein the elements of the second set of binary numbers are assigned to the same indicators during game play] any permutation of assigning the elements of the second set of binary numbers to the indicators.

111. (Currently amended) An electronic game device comprising:

a playfield that includes a plurality of playing positions, wherein each playing position includes an indicator that provides a plurality of visual indications,

a switch control mechanism to enable a player to select and activate any playing position on the playfield, and which includes at least one of a keypad switch corresponding to each playing position, a cursor control switch structure, and a touch screen control structure,

a microprocessor to control the operation of the device,

a control program executed on the [processor] microprocessor that assigns a first set of binary numbers to playing positions on the playfield, routes binary numbers respective to [an activated playing position] the playing position activated by the player to each other, generates a second set of binary numbers from said first set of binary numbers using a Boolean function or a lookup table, assigns said second set of binary numbers to indicators on the playfield to provide visual indications, and determines if [the] a predetermined objective of the game is met.

112. (Original) An electronic game device as recited in claim 111 further comprising a housing.

10

113. (Original) An electronic game device as recited in claim 111 further comprising a control program segment that provides a plurality of games by varying the assignment of binary numbers to playing positions on the playfield.

114. (Currently amended) An electronic game device as recited in claim 111, wherein said control program includes a plurality of segments, and wherein the program segment that assigns the second set of binary numbers to indicators is based on [a fixed relationship between] any permutation of assigning said second set of binary numbers to the indicators [the elements of said second set and the indicators].

115. (Original) An electronic game device as recited in claim 111, wherein the indicators are implemented by light emitting means.

116. (Currently amended) An electronic game device as recited in claim 115, wherein said plurality of visual indications includes at least one illuminated color, and one reflected color when an indicator is dark.

117. (Original) An electronic game device as recited in claim 115, wherein said light emitting means includes one, or a plurality of light emitting diodes at each playing position.

118. (Original) An electronic game device as recited in claim 117, wherein said plurality of light emitting diodes have different colors.

119. (Original) An electronic game device as recited in claim 111, wherein the indicators are implemented using at least one of LCD screen, plasma screen, digital light processor screen, and CRT screen.

120. (Original) An electronic game device as recited in claim 111, wherein said plurality of visual indications includes a geometric shape in different colors.

121.   (Original) An electronic game device as recited in claim 111, wherein said plurality of visual indications includes of at least one image, and a visual indication resulting from the absence of an image at a playing position.

122.   (Original) An electronic game device as recited in claim 111, wherein said plurality of visual indications includes a plurality of images.

123.   (Original) An electronic game device as recited in claim 111, wherein said first set of binary numbers is generated randomly.

124.   (Original) An electronic game device as recited in claim 111, wherein said first set of binary numbers is predefined, and is stored in a data section of the control program.

125.   (Original) An electronic game device as recited in claim 111, wherein said housing is in the form of a three-dimensional configuration, and wherein the plurality of playing positions is mapped on the surface of said three-dimensional configuration.

126.   (Currently amended) A method for an electronic game device, controlled by a microprocessor, having a playfield that includes a plurality of playing positions, wherein each playing position includes an indicator that provides a plurality of visual indications, and wherein the microprocessor performs the steps of:

> assigning a first set of binary numbers to the playing positions,
>
> routing the binary numbers respective to [an activated playing position] the playing position activated by the player to each other,
> generating a second set of binary numbers from said first set of binary numbers,
>
> assigning said second set of binary numbers to indicators, and
>
> determining if [the] a predefined objective of the game is met.

127.   (Currently amended) A computer program embedded on a computer readable media, and performing the following steps:

assigning a first set of binary numbers to playing positions on a playfield,

routing the binary numbers respective to a selected playing position to each other,

generating a second set of binary numbers from said first set of binary numbers,

assigning said second set of binary numbers to indicators associated with
playing positions, and

determining if [the] a predefined objective of the game is met.

128.   (New) An electronic game device as recited in claim 96, wherein said algorithm

simulates the operation of a geometric configuration that comprises a plurality of internal routes to

route binary numbers to each other, and wherein the geometric configuration has two states such

that the first state is associated with at least one route, and the second state is associated with at least

one alternate route.

129.   (New) An electronic game device as recited in claim 100, wherein said means to

route binary numbers to each other includes an algorithm that simulates the operation of a

geometric configuration that comprises a plurality of internal routes to route the binary numbers to

each other, and wherein the geometric configuration has two states such that the first state is

associated with at least one route, and the second state is associated with at least one alternate route.

REMARKS

Reconsideration of the above-identified application in view of the amendments to the

specifications, drawings, and claims above and the remarks following is respectfully requested.

Claims 83-127 were originally in this case. Claims 97 & 106 have now been cancelled,

new claims 128 & 129 have now been added, and claims 83, 87, 90-92 & 96, 100, 102-103, 109-

111, 114, 116, 126 & 127 have now been amended.

13